



ELECTRIC MULTIPLE-UNIT FLIRT NORDIC

Since their market launch in 2004, FLIRTs have proven themselves in Sweden, Finland, Estonia, Belarus and Norway – countries with extreme winter conditions. Depending on the equipment fitted, the FLIRT (Fast Light Innovative Regional Train) can be used for commuter transport as well as for inter-regional and intercity rail routes. The Flirt excels due to its comfortable low-floor entrances, its open, bright and transparent interior, as well as its individual customisation options for seating arrangements, multifunctional areas and luggage racks. Sealed engine compartments provide the traction equipment with optimum protection from rain, snow and ice, while double gangway bellows are used in the inter-carriage connections. Air suspension, high-grade materials, a modern passenger information system and a proven HVAC system guarantee comfortable travel for everyone on board. Flirt Nordic trains are available as 3-car up to 6-car units and are approved for a maximum speed of 200 km/h.

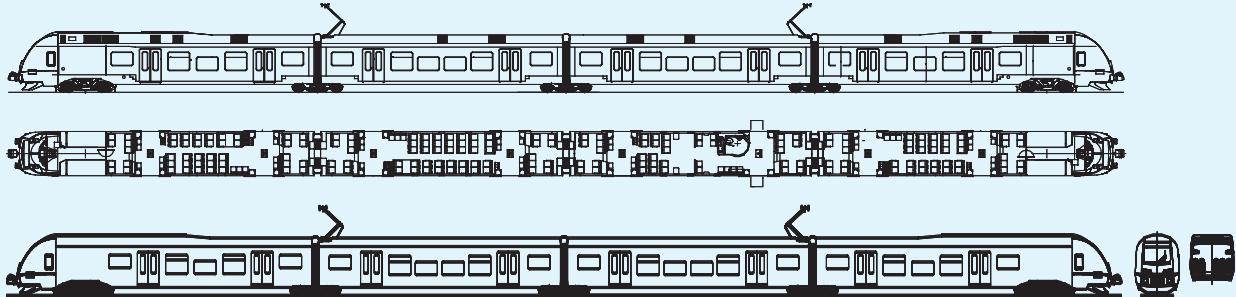
www.stadlerrail.com

Stadler Rail Group

Ernst-Stadler-Strasse 1
CH-9565 Bussnang
Phone +41 71 626 21 20
stadler.rail@stadlerrail.com

Stadler Bussnang AG

Ernst-Stadler-Strasse 4
CH-9565 Bussnang
Phone +41 71 626 20 20
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Technical features

Technology

- HVAC systems for passenger compartments and driver's cabs, with fresh air circulating via the perforated ceiling, and a panel heating system
- Car body made of extruded aluminium profiles in accordance with EN 15227, Class 1
- Motor bogies and trailer bogies with pneumatic suspension
- Multiple unit train control for up to four vehicles
- Lightweight car bodies in integral aluminium design in line with the latest standards for crashworthiness (EN 15227) and car body strength (EN 12663)

Comfort

- Bright, passenger-friendly interior
- Generously dimensioned entrance areas for optimum passenger flow
- Five entrance doors on each side

Personnel

- Ergonomically designed working environment to prevent driver fatigue
- Central driver's cab for one-man operation in accordance with UIC guideline 651
- User-friendly passenger information systems

Reliability / Availability / Maintainability / Safety

- Redundant drive equipment with two power trains with water-cooled IGBT power converters
- Vehicle control system with train bus and diagnostics computer (CANopen bus)

Vehicle data

| | |
|-------------------------------------|----------------------|
| Gauge | 1435 mm |
| Supply voltage | 15 kV, 16.7 Hz |
| Axle arrangement | Bo' 2' 2' 2' Bo' |
| Seating capacity incl. | 226 |
| Tip up seats | |
| Floor height | |
| Low floor | 800 mm |
| High floor | 1180 mm |
| Entrance width | 1300 mm |
| Overall length | 80.5 m |
| Vehicle width | 3200 mm |
| Vehicle height | 4380 mm |
| Bogie wheelbase | |
| Motor bogie | 2500 mm |
| Trailer bogie | 2750 mm |
| Driving wheel diameter, new | 920 mm |
| Carrying wheel diameter, new | 920 mm |
| Max. power at wheel | 3000 kW |
| Starting tractive force | 160 kN |
| Starting acceleration | 0.8 m/s ² |
| Maximum speed | 200 km/h |